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generating third data representing at least one video frame based upon information from the first and/or second data, the third data comprising a plurality of elements having visible discontinuity between adjacent elements;

storing the third data in the memory; and

filtering at least a portion of the generated third data by reducing visible discontinuity between adjacent elements in the generated third data.

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7. (Amended) The method of Claim 2, further comprising:

determining a filter strength, wherein the filter strength identifies the number of pixels from the edge of the macroblocks that are to be filtered; and

selectively filtering pixels in each of the macroblock quadrants based upon the filter strength.

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9. (Amended) A system for generating video frames, the system comprising:

means for receiving first video frame data in a memory in a computer system, the first video frame data comprising a plurality of elements, each element corresponding to a group of pixels, the first video frame data representing a first video frame;

means for receiving second video frame data in the memory in the computer system, the second video frame data comprising a plurality of elements, each element corresponding to a group of pixels, the second video frame data representing a second video frame;

means for generating at least one intermediate video frame based upon information from the first video frame data and/or the second video frame data, the third video frame data comprising a plurality of elements, the at least one intermediate video frame representing at least one selected element at a position intermediate to respective positions whereat the element is represented by the first video frame and the second video frame; and

filter means for reducing visible discontinuity between at least two adjacent elements in the at least one generated intermediate video frame.

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A4

15. (Amended) The system of Claim 10, further comprising:

means for determining a filter strength for the filtering act, wherein the filter strength identifies the number of pixels from the edge of the macroblock quadrants; and

means for selectively filtering pixels in the macroblock quadrants based upon the filter strength.

17. (Amended) A video presentation, comprising:

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first frame data in a memory in a computer system, the first frame data representing a first video frame, the first frame data comprising a plurality of elements, each element corresponding to a group of pixels;

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second frame data in the memory in the computer system, the second frame data representing a second video frame, the second frame data comprising a plurality of elements, each element corresponding to a group of pixels; and

intermediate frame data representing an intermediate video frame between the first and second video frames, the intermediate frame data based upon information from the first and second frame data, the second frame data comprising a plurality of elements, the intermediate video frame representing at least one selected element at a position intermediate to respective positions whereat the selected element is represented by the first video frame and the second video frame, and wherein at least a portion of the intermediate video frame has been filtered to reduce visible discontinuities between elements.

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24. (Amended) A program storage device, storing instructions which, when executed, perform the method comprising:

receiving first data representing a first video frame, the first data comprising a plurality of elements in a memory in the computer system, each element relating to a group of pixels, the first data representing a first element at a first position in the first video frame;

receiving second data representing a second video frame, the second data comprising a plurality of elements in the memory in the computer system, each element relating to a group of pixels, the second data representing the first element at a second position in the second video frame;

generating third data representing an intermediate video frame based upon information from the first and/or second data, the third data representing the first element at a position intermediate to the first and second positions; and

filtering at least a portion of the intermediate video frame by reducing visible discontinuity between the first element and an adjoining element.

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30. (Amended) The program storage device of Claim 25, additionally comprising instructions that when executed perform:

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determining a filter strength, wherein the filter strength identifies the number of pixels from the edge of the macroblock quadrants; and  
selectively filtering pixels in the macroblock quadrants based upon the filter strength.

4832. (Amended) In a computer system, a method of generating frames, the method comprising:

receiving a first frame in a memory in the computer system, the first frame representative of a digital image at a first time, the first frame including a plurality of macroblocks, each of the macroblocks having four quadrants with a plurality of rows and columns of pixels, and each of the pixels having an associated intensity value;

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receiving a second frame in the memory in the computer system, the second frame representative of the digital image at a second time, the second frame including a plurality of macroblocks, each of the macroblocks having four quadrants with a plurality of rows and columns of pixels, and each of the pixels having an associated intensity value;

generating at least one intermediate frame based upon the macroblock quadrants in the first and/or second frames, the at least one intermediate frame representative of an intermediate position of one or more selected macroblock quadrants in the first frame and/or the second frame;

determining a filter strength, wherein the filter strength identifies the number of pixels from the edge of the macroblock quadrants;

selectively filtering pixels in the macroblock quadrants based upon the filter strength;

determining the average of the pixel intensity of one or more proximately positioned pixels with respect to each of the selected pixels; and

associating with each selected pixel the respective determined average pixel intensity.

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36. (Amended) A system for generating video frames, the system comprising:

a frame analysis module for receiving frames; and

a frame synthesis module for generating at least one frame between two received frames, the frame synthesis module filtering the generated frames thereby reducing visible discontinuities in at least region in the generated frame including adjoining elements that includes visible discontinuities.

Please add new Claims 38-54.

24 38. In a computer system, a method of generating frames, the method comprising:  
transmitting a first frame;

transmitting the second frame;

receiving the first frame in a memory in the computer system, the first frame representative of a digital image at a first time, the first frame including a plurality of macroblocks, each of the macroblocks having four quadrants with a plurality of rows and columns of pixels, and each of the pixels having an associated intensity value;

receiving the second frame in the memory in the computer system, the second frame representative of the digital image at a second time, the second frame including a plurality of macroblocks, each of the macroblocks having four quadrants with a plurality of rows and columns of pixels, and each of the pixels having an associated intensity value;

generating at least one intermediate frame based upon the macroblock quadrants in the first and/or second frames, the at least one intermediate frame representative of an intermediate position of one or more selected macroblock quadrants in the first frame and/or the second frame;

determining a filter strength, wherein the filter strength identifies the number of pixels from the edge of the macroblock quadrants;

selectively filtering pixels in the macroblock quadrants based upon the filter strength;

determining the average of the pixel intensity of one or more proximately positioned pixels with respect to each of the selected pixels; and

associating with each selected pixel the respective determined average pixel intensity.

39. The method of Claim 1, wherein the computer system includes a display.

40. The method of Claim 1, additionally comprising determining a filter strength, wherein the filter strength identifies the amount of smoothing performed by a filter.

41. The method of Claim 1, additionally comprising determining a filter strength, wherein the filter strength identifies a particular filter from a plurality of filter choices each having different filter characteristics.

24 42. The system of Claim 9, wherein the computer system includes a display.